National Institute of Environmental Health Sciences

Valuation of urban air pollution: A case study of Kanpur City in India

Author(s): Gupta U
Year: 2008
Journal: Environmental & Resource Economics. 41 (3): 315-326

Abstract:

This study estimates the monetary benefits to individuals from health damages avoided if air pollution is reduced in the urban industrial city of Kanpur in India. A notable feature of this study is that it uses data from weekly health-diaries collected for three seasons. For measuring monetary benefits, the study considers two major components of health cost that is incurred due to adverse effects of air pollution on health i.e., the loss in wages due to workdays lost from work and the expenditure incurred on mitigating activities. The study estimates that a representative working individual from Kanpur would gain Rs. 165.47 per year if air pollution were reduced to a safe level. The extrapolated annual benefits for the entire population in the city are Rs. 224.55 million.

Source: http://dx.doi.org/10.1007/s10640-008-9193-0

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Meteorological Factors, Temperature

Air Pollution: Particulate Matter, Other Air Pollution

Air Pollution (other): NOx; SO2

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: India

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Infectious Disease, Respiratory Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): blood pressure ailment; heart disease

Infectious Disease: Airborne Disease

Airborne Disease: Tuberculosis

Respiratory Effect: Asthma, Other Respiratory Effect

Respiratory Condition (other) : tuberculosis

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Mitigation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Cost/Economic

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Short-Term (